

dent who loves to ramble through the woods and fields in search of natural objects of interest.

F. J. SEAVER

## PROCEEDINGS OF THE CLUB.

### MEETING OF MARCH 14, 1922.

The meeting was held at the American Museum of Natural History.

The following were elected to membership: Mrs. Ellis Parker Butler, Flushing, New York, Mr. Edgar Nelson, Flushing, New York Dr. Eda M. Rounds, Providence, R. I., Dr. Charles Vetter, New York City.

The resignation of Mr. N. A. Lawrence was accepted.

It was voted to endorse a project to establish a Northeastern Forest Experiment Station and the Secretary was instructed to write letters to Congressmen in support of a bill recently introduced to accomplish this end (S. 783 and H. R. 9689).

The scientific program consisted of an illustrated talk on "Botanizing in British Guiana" by Dr. H. A. Gleason. Dr. Gleason left New York June 2, 1921, spent ten weeks in collecting, and returned to New York, September 6. Field work was considerably hampered by the almost incessant rains of the season, but almost a thousand numbers and some four thousand specimens were obtained. Most of these were collected in the dense tropical rain forest along the Essequibo and Potaro rivers, from 75 to 175 miles back from Georgetown, but an interesting series was also secured from the open forest on the white sands lying between the Essequibo and Demerara rivers. The most noteworthy families represented are the Rubiaceae, Melastomataceae, and Leguminosae in the old sense. A few new species have already been found in the collections, and one represents an apparently new genus of the Rapateaceae.

After discussion, adjournment followed.

MARSHALL A. HOWE  
Secretary.

### MEETING OF MARCH 29, 1922

This meeting was held in the botanical lecture-room of Schermerhorn Hall, Columbia University.

Mr. Bayard Long was elected the Club's delegate to the twenty sixth annual meeting of the American Academy of

Political and Social Science in place of Dr. F. W. Pennell, who is unable to serve on account of absence in South America.

Prof. Willard M. Porterfield, a graduate student at Columbia University, was elected to membership.

Mr. Morten P. Porsild, Director of the Danish Arctic Station on Disko Island, Greenland, presented a valuable communication on "The Flora of Greenland: Its Affinities and Probable Age and Origin." An abstract furnished by the speaker follows:

At present we know from Greenland 416 species of vascular plants, 608 bryophyta, 717 fungi, 285 lichens, 181 marine algae, 363 fresh water algae, 617 diatoms, and 41 dinoflagellates. In the present remarks the term "flora" means only the vascular plants, the cryptogams of some of the adjacent countries being still too imperfectly known for comparisons. The flora of Greenland was considered by J. D. Hooker (1861 and 1875) to be mainly of Scandinavian origin and the view has been repeated by recent writers, although both Joh. Lange (1880) and Eug. Warming (1888) have raised objections against it. Warming supposed that the main stock of the flora might have survived the Great Ice Age on ice-free mountain peaks, supposed by some geologists never to have been covered by ice, as is indicated by their present rugged surface.

According to the general distribution of each single species, we may divide the plants in different types:

<i>Western</i>	<i>W+E</i>	<i>Eastern</i>	<i>Percentages</i>
III 9.2	II 6.7	I 2.3	<i>Northern 18.2</i>
VI 3.7	V 17.5	IV 0.2	<i>Widely distributed 21.4</i>
IX 12.7	VIII 31.4	VII 16.3	<i>Southern 60.4, of which 22 are temperate</i>
25.6	55.6	18.8	100—

The table shows that *the western element is greater than the European and that four fifths of the flora may as well have immigrated from the west as from the east.*

As erratic blocks actually have been found on several rugged peaks and as the weathering action of the arctic climate will produce rugged alpine surfaces, even when the peaks have been rounded by ice action (R. S. Tarr), it seems improbable that any considerable part of the flora of Greenland has survived the Great Ice Age, at least *a surviving would be impossible to the great southern element*, three fifths of the flora, now found only in sheltered lowland positions. If that element could immigrate in post-glacial time, it would be much easier for the arctic element.

As Greenland is separated towards the East, West, and South by great distances of sea and only towards the north has it a neighboring country still poorer in plants than itself, the difficulties of immigration under present climatic conditions are very great. Geologists also deny the existence of post-glacial land-connections with Greenland. The problems of immigration would be much easier, if we assume for the Arctic countries *a post-glacial warmer epoch*, in analogy with facts established for Northern Europe.

*An actual evidence of a more genial climate in Greenland* was found by Ad. S. Jansen and P. Harder in the occurrence of bivalves in raised marine beds at 68° N. lat., of which no living specimens are known north of the estuary of the St. Lawrence River. The difference in the present average temperatures of the warmest month of the places mentioned is at least 14° F.

If a milder post-glacial epoch could be affirmed generally for Northern America, it probably would yield an explanation of the fact that the present habitations of the Eskimo everywhere are bordered with a broad zone formerly inhabited but now uninhabitable. And if that epoch was contemporaneous with the North European, ending about 1000 B. C., it might *place the dispersal of the Eskimo and the development of their culture to completeness back to the Neolithic Age.*

After discussion of Mr. Porsild's paper, the meeting adjourned.

MARSHALL A. HOWE  
Secretary.